

Expanding treatment options for the patent arterial duct (PDA) - Amplatzer Ductal Occluder-II Additional Sizes (ADO-II AS) Early clinical experience

Yao N.-A., Ramchandani B., Mehta C. Bhole V. Dhillon R., Stumper O. de Giovanni J.
Birmingham Children's Hospital, Birmingham, United Kingdom

BACKGROUND

Since 1998, the Amplatzer generation of duct occluders have been used with very good success. The latest addition to the ADO family - the ADO II AS possesses a lobe and two discs which extrude only 1mm to 1.5mm beyond the lobe delivered through a 4Fr catheter. There are 9 devices - 3, 4, 5mm waist sizes and 2, 4, 6mm device lengths. The ADO-II AS can be used to close ducts in infants under 6 kg.

OBJECTIVES

To evaluate the feasibility, clinical efficacy and duct morphology for the new ADO-II-AS. procedure approach, complications and duct closure success.

METHODS

Prospective single centre study from January 2011 to date.
20 patients were electively selected for implantation of ADO-II AS
15 patients had volume overload with heart failure in 5.

TABLE

	RANGE	MEDIAN
AGE -months	2-89	10.5
WEIGHT-kg	2-19	10
PDA NARROWEST POINT mm	1.5-4	2.5
PDA LENGTH-mm	3.5-6.6	5.5
PDA TYPE	A-C	A

RESULTS

17 devices were successfully implanted and all by arterial delivery. Of the other 3, 1 had surgical ligation and 2 had ADO devices. There were 2 venous attempts which were unsuccessful; 1 was delivered arterially and the other had an ADO. Follow up echocardiography within 24 hours post implantation and at 6 weeks showed no residual shunts in all 17 cases.

COMPLICATIONS

There was 1 acute but no late embolization.

CONCLUSIONS

ADO-II AS is a welcome added device for PDA closure, it can be delivered by the arterial or venous route; more experience is required to identify the types of ducts that will benefit most from its use. However the device lends itself to use in smaller infants.